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The Use of Natural Language in Counseling Psychology Research

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Abstract

Compelling reasons for diversification of research methods in counseling psychology must exist in order to overcome natural academic inertia. The two most common arguments for implementing diversity--inapplicability of quantitative research to counseling practice and a need to derive research methods from the "new paradigm" of human knowledge--are too weak to warrent major revisions to current instructional programs. Another rationale is proposed, one solidly rooted in the knowledge goal of counseling psychology--an understanding of the full range of human experience and behavior. An inventory of diverse research methods--those which use numeric data formats as well as those which use natural-language data formats--is required to address the spectrum of questions relevant to the field of counseling psychology.

The Use of Natural Language in Counseling Psychology Research

Methodological Diversity

The theme for the the Counseling Psychology Division of APA (Division 17) programs at this convention is proposals for diversity and innovation in counseling psychology. I believe, however, that in some areas of our body of knowledge we are overly diverse. In our theories and techniques of counseling and psychotherapy we have an embarrassment of riches and many conflicting ideas. Among the diverse theoretical positions in our field are the behavioral, existential, cognitive, family-systems, Adlerian, approaches, as well as various psychoanalytic theories, including object-relations. The variety of our counseling techniques is overwhelming. Herink's Psychotherapy Handbook, published in 1980, included articles on more than 250 different therapeutic approaches to psychotherapy. In the decade since he edited that collection, the number of new therapeutic techniques has continued to increase. The one area in which we have opposed diversification is our approach to research. The reason for our resistance to diversity in research methods may be that, given the

diffuse condition of our theories and techniques, it is the one area in which we hope to find agreement and unity.

Nevertheless, I, along with the other members of this panel, am arguing for diversity in the research methods used in counseling psychology. This is not to say that there is no variation in the research designs in current use. We do not limit ourselves to pure experimental designs carried out in laboratories, having expanded our design repertoire to include single-subject and quasi-experiments carried out in field settings; we use between-group, within-group, and complex designs; and we make use of the variety of statistical analyses derived from regression analysis and analysis of variance. Yet these are variations on a common theme, a theme centered in gathering data in numeric form and in using statistical procedures for the analysis of these data. I propose that counseling psychology diversify its methodological approach beyond the boundaries of the quantitative, to include research that uses data in the form of natural language and employs analytic processes based on linguistic understanding. Natural-language data, by retaining the configurations of human expression, admits researchers

to the study of personal and social meaning and of the purposes of speech and action. Among research methods using natural-language data are ethnography, participant observation, grounded theory, phenomenology, and hermeneutics. These methods have been developed and are practiced in our sister human sciences, particularly anthropology and sociology. Although there are significant differences among these approaches in data-gathering techniques and styles of analysis, it has become common practice to group them under the term qualitative research. Because the term qualitative has come to connote an opposition to qualitative and is not descriptive of the distinctive character of these methods, I have preferred to use the term natural language to describe them.

The call for an extended methodological diversity is not new. In their chapter The Coming Decade in Counseling Psychology, Hill and Gronsky (1984) wrote:

> We would . . . suggest that the helping professions need to adopt new models for research which more closely fit human behavior than do the models of the physical sciences. Our new models may well be similar to those used in anthropology

> and sociology which have long dealt with complex issues of human behavior. (p. 154)

Prior to the 1987 Utah conference, the call had been sounded at each of the APA conferences on professional training (Barlow, Hayes, & Nelson, 1984). The October 1984 issue of Journal of Counseling Psychology (Gelso, 1984) contained a special section on the philosophy of science and counseling research, and the January 1989 issue of The Counseling Psychologist (Fretz, 1989) was devoted to a discussion of alternative research paradigms.

In spite of these continuing calls, there has been little movement in counseling psychology toward expanding its research methodology to include the natural-language approaches. An important index of the acceptance of the kind of methodological diversity proposed here is the designs used for doctoral dissertations accepted in counseling psychology programs. The most recent study of methods used in psychology dissertations that I could locate was done in 1980 by Dalia Ducker. She found that less than 3 percent of acceptable doctoral dissertations in clinical and professional programs used natural-language methods. From my own inquiries, I believe the

current percentage for counseling psychology programs to be lower than that found by Ducker.

I do, however, detect more openness in counseling psychology than before to research using natural-language data. For example, at the University of Southern California, the School of Education, in which the counseling psychology program is housed, has added competence in qualitative research to its doctoral qualifying examinations. I share Goldman's (1989) optimism "that our field is ready for a change" (p. 85).

To implement a diversity of research methods will require more than the calls for change and more than an openness to change. Implementation will require our doctoral training programs to make changes in our curricula and in our notions of acceptable methods for dissertations. It appears to me that the present resistance to instituting training in alternate methods in counseling psychology programs is not so much a matter of the philosophical rejection of natural-language methods as it is one of pragmatic impediments. For example, to teach courses and supervise dissertations in natural-language research, faculty members would have to be hired or trained. As a

temporary measure, students could take the courses in sociology or anthropology departments that teach these methods. There is also the difficulty of finding room in the already-full curriculum for natural-language research courses. Students would require as much instruction in these methods as they now receive in quantitative methods in order to critique qualitative research and begin dissertations using natural-language methods. Hoshmand (1989), in her recent article has outlined a condensed, nine-unit research curriculum that includes instruction in philosophy of science and both quantitative and natural-language methods.)

The most likely scenario for implementing methodological diversity in counseling psychology would be for several key programs to take the lead in instituting natural-language research courses and producing dissertations based on these methods. Assuming that these programs demonstrated their use and value to their graduates and produced significant research, other programs would come to adopt the expanded approach. But, because of the power of inertia and resistance to change that academic departments share with all other organizations, the first implementations of these programmatic additions

will require departmental commitments inspired by an understanding of the importance of this expansion for our discipline.

Reasons for Methodological Diversity

The two most common reasons given by advocates of natural-language research are that quantitative research has little impact on counseling psychology practice and that quantitative research is wedded to an outdated paradigm. I believe that both of these contentions are off target and insufficient in themselves to support the efforts required to bring about methodological diversity. In their place, I will argue that quantitative research techniques are limited in the types of questions they can address and that without the addition of natural-language techniques our research tools are incomplete.

Impact on Counseling Practice. The February 1986 issue of American Psychologist includes Morrow-Bradley and Elliott's (1986) report of their survey of Division 29 (psychotherapy) members' production and utilization of psychotherapy research. Although their results are generally consistent with previous studies, the extensive questionnaire they used allowed them to document more thoroughly therapists' research

utilization practices and the problems practitioners identify in current psychotherapy research. These were their conclusions:

1. "Utilization of therapy research is low, but the study does confirm that psychotherapy research is utilized in some manner by many clinical psychologists in clinical decision making" (p. 194).

2. Theoretical orientation and the number of research articles read were the best predictors of utilization.

3. "In terms of problems in the current therapy research literature, therapists were more concerned with poor external validity [that is, with relevance] and oversimplification than with problems of information dissemination or methodological issues such as statistics or reactivity" (p. 194).

The source of information about psychotherapy that practitioners found most useful was their ongoing experience with clients; "only 10% reported psychotherapy research articles or presentations as their primary source of information" (p. 191). The apparent lack of relevance for practice of specific knowledge claims developed by counseling psychology research remains a enigma for our field.

In the same 1986 issue of the American Psychologist, Cohen, Sargent, & Sechrest (1986) make a useful distinction between the instrumental and conceptual utilizations of psychotherapy research. Instrumental utilization is the direct application of a research report to a clinician's practice; for example, the adoption of a particular technique because it was reported to be effective in a research article. Cohen, Sargent, & Sechrest report that there is little instrumental use of research articles by practitioners. Conceptual utilization is a broader idea and refers to the general effect of research training on clinical practice; for example, thinking more critically, sharpening observational skills, and taking empirical data more seriously. Cohen, Sargent, & Sechrest report that conceptual use is more common than instrumental use (p. 204).

I do not believe that the issue of relevance of research and instrumental utilization by practitioners will of necessity be solved by the use of natural-language methods. Natural-language methods can address many problems of interest to clinicians that are not easily addressed by quantitative methods, such as the interpretive structures clients use to make sense of

certain life events. Other questions, such as the probable effectiveness of a particular type of intervention, are more appropriately answered by quantitative studies. The results of both natural-language studies and quantitative studies will need to be translated into the language of practitioners (Harmon, 1989) if they are to be useful to them. Cohen, Sargent, and Sechrest (1986) suggest that the traditional journal format, which facilitates informed judgment of the scientific merit of the reported research, does not serve to translate the research into a form that demonstrates its relevance for practice.

It may be that the problem of research utilization in counseling psychology has been misstated. Given the complexities of the clinical situation and the unique sets of characteristics of clients and therapists, the direct application of research findings in the clinical setting should not be expected, nor held out as the ideal. Schön (1983) proposes that the judgments of practitioners do not consist of the simple application of research findings. Rather, their judgments are the result of a complex process involving the consolidation of background knowledge, awareness of the salient characteristics of

the particular situation, recollections drawn from clinical experience of patterns of action that might have a bearing on the situation, and evaluative reflection on all those factors. If this description is accurate, neither training in quantitative and natural-language methods nor reading research articles is simply and directly applied in clinical interventions. Rather, they add to the therapist's body of background knowledge, patterns of understanding, and range of responsive options. They furthermore help equip the practitioner with the evaluative and conceptual understandings needed for skilled reflection. Consequently, perhaps the most important contribution training in research makes to clinical practice occurs at the level of <u>conceptual utilization</u>. Because the analytic tools of natural-language research are designed for uncovering themes and interpretive patterns that organize people's experience--tasks that are also essential for practitioners in understanding clients, training in natural-language research methods will advance practitioners' skills of understanding clients' experience.

The reason for extending methodological diversity to include natural-language research is not that such research will necessarily produce results which that are more instrumentally applicable to clinical practice. By adding natural-language research to our training programs and knowledge base, we will extend our conceptual repertoire to include skills in gathering and analyzing information in the same form it takes in our work situations.

The Need for a Paradigm Shift. The second commonly cited reason for the importance of natural-language research approaches is that quantitative research methods are based on an outmoded positivistic paradigm (for example, Reason & Rowan, 1981, and Lincoln & Guba, 1985). This is an argument not for methodological diversity but for the replacement of quantitative methods by natural-language methods. I believe this argument both misunderstands the so called "new paradigm" and confuses the historical origins of quantitative practices with their current applications.

During the past several decades there has been a radical change in the philosophy of science (Polkinghorne, 1983). The essence of this change was the abandonment of the idea that there is a sure and

certain foundation for knowledge claims (Rorty, 1979). The view that held sway prior to this change has been called the "modern" or "objectivist" view of knowledge; the current view is sometimes referred to as the "postmodern" or "experientialist" view. Several themes characterized the objectivist view:

1. Reality consists of entities divided into natural kinds or categories that are differentiated by their essential properties.

2. Transcendental logical relations, which are independent of any minds, exist objectively among the categories of the universe.

3. Human beings have a special faculty for formal reasoning that matches the logical relations among the categories of the universe.

4. Mathematics is an expression of formal logic and is the language by which the logical relations among the categories can be expressed.

5. Because rules of formal logic govern relations within the universe, when humans reason logically they overcome the limitations of the situated subjectivity of human existence.

6. Natural languages and everyday human concepts are too vague or ambiguous and unsuitable to describe

the categories of the universe, thus, knowledge requires the creation of a purified language consisting of only words that have been operationally defined.

7. We gain new knowledge by devising hypothetical logical relations among entities and then testing these hypotheses by observation to see if the proposed relation holds.

In combination these themes supported the notion of a permanent, neutral framework for scientific inquiry that provided assurance that knowledge statements generated by experimentation were accurate descriptions of reality.

The current view generally held by philosophers of science incorporates these themes:

1. "Human reason is not an instantiation of transcendental reason; it grows out of the nature of the organism and all that contributes to its individual and collective experience: its genetic inheritance, the nature of the environment it lives in, the way it functions in that environment, the nature of its social functioning, and the like" (Lakoff, 1987, p. xv).

2. All knowledge is developed through the interaction of human cognitive processes with the environment.

3. "The centrality of human embodiment directly influences what and how things can be meaningful for us, the ways in which these meanings can be developed and articulated, the ways we are able to comprehend and reason about our experience, and the actions we take" (Johnson, 1987, p. xix).

4. Knowledge is not limited to understanding relations among objects in the world, but includes understanding of the enriched environment of social reality--that is, human institutions, values, and conceptual tools.

5. Knowledge consists of the interpretation of our perceptual interactions through patterns of understanding that are grounded in the properties of basic-level gestalt perceptions and the relational characteristics of the recurring preconceptual kinesthetic experiences held as image-schemas.

6. Our experience manifests a discernible order primarily through gestalt structures rather than through algorithmic processes.

7. Abstract conceptual structures are developed through the imaginative work of metaphoric and metonymic extensions of the basic-level perceptions and image-schemas.

These themes lead to the view that science is a rational human activity directed toward greater understanding of ourselves, others, and the world. It makes use of common human capacities and experiences for its foundation. Like our everyday interactions with the world, science seeks to make experience intelligible by fitting it into one of our interpretive structures. These structures are organized by various logics. (Lakoff, 1987, has identified five types of logical structure--the proposition, the scenario or script, the feature bundle, the taxonomy, and the radial--used to organize experience.) The notion of rationality is expanded from the exclusive use of formal logic to include the use of these various logical structures as legitimate ways of understanding. Generation of scientific or rational knowledge uses the same repertoire of thinking skills applied in the generation of everyday knowledge through our ordinary activities. Thus, science is not differentiated from other human knowing by the use of a special and unique type of thinking. Rather, science is differentiated by being an activity in which thinking is applied with conscious reflection and self-critique and which holds its conclusions up for public scrutiny and refutation.

In both everyday and scientific knowing, the structural understanding of experience is strongly, though not totally, constrained by reality.

Within this view of science, mathematics is not a reflection of the transcendental organization of the universe. It is instead a human construct grounded "in our preconceptual bodily experience . . . that we make abstract via metaphor" (Lakoff, 1987, p. 355). It is the study of the structures that we use to understand and reason about our own experience. Mathematical logic is the limited form of reasoning used by mathematicians to construct mathematical proofs, rather than the essential expression of human rationality. For example, Lakoff (1987) and Johnson (1987) suggest that the inferential patterns of formal logic, such as the law of the excluded middle, transivity, and negation, arise from the bodily experience of containment.

Thus, the description I have given of the new paradigm supports the use of the variety of analytical logics, including mathematical logic. But it does not support a case for replacing mathematical reasoning as a tool for understanding. Each logic provides a way of organizing information into a meaningful form. No one

logic, however, has cognitive privilege. Because all analytics construe phenomena to an incomplete degree, the use of various logics provides a more extensive understanding than any one alone. As counseling psychologists seek for greater understanding of human beings, we need to encourage diversity of approaches, not the precedence of one methodological logic over others. The criterion for accepting knowledge claims is not that a particular method was adhered to but that the knowledge-generating process has a) cohered to the particular logic used in drawing together its conclusion, b) passed the muster of public scrutiny, and c) provided a particular partial display of the phenomena that is useful to the field (Margolis, 1987).

Historically, quantitative research practices were developed during the period of the objectivist paradigm and were consistent with its foundationalist understanding of science. Although originally justified on the basis of the philosophy of science of that time, the research designs and enhancements to statistical procedures developed by psychology retain their usefulness and importance within the current understanding of science. As research tools they are neutral with respect to a particular paradigm. They

can serve as valued and useful instruments for increasing our comprehension of the human world independently of the objectivist notion that mathematical reasoning is the application of the transcendent logic of the universe. One can establish the mathematical probabilities of the relations among variables without being committed to the idea that the variables represent natural categories composing the universe. My reading of current quantitative research texts is that few are concerned about philosophical justifications for their practices. Those that do show concern appear to have adapted without difficulty to the postmodern paradigm. For example, Stanovich (1989) suggests that psychological research is not essentialist and that the concepts used in the research are not intended as representations of universal categories; rather, psychological concepts evolve over time and are constructs given definition by their link to observable events. Stanovich also highlights the idea of the restricted character of "currently available empirical [that is, quantitative] techniques" (p. 19). The only class of questions that these

techniques can address are those which can be framed to take advantage of statistical analytic procedures. Stanovich goes on to say that such questions are not the only questions of importance nor the only ones in need of answers.

Expanding Our Methodological Repertoire. The primary reason for adding natural-language research methods to the field of counseling psychology is that important questions in our field are not easily addressed by quantitative methods alone. Two areas of particular utility for natural-language methods are the generation of categories for understanding human phenomena and the investigation of the interpretation and meaning that people give to events they experience. By not employing the methods designed to explore the realm of meaning by which people make sense of their lives and from which they choose their actions, our research neglects what our theories indicate as the most crucial aspect of human existence. Without the use of natural-language methods, our knowledge base is needlessly limited.

Natural-language and quantitative methods are not oppositional; they are merely different. Although they use distinct data types and analytical tools, they

share a commitment to the generation of knowledge proposals through a reasoned and reflective examination of empirical data and the submission of these proposals to the community of scholars for criticism and testing. The use of mathematical tools of analysis demands that data be presented in numeric form. This condition involves translation of the concepts under investigation into an operationalized language whose words are defined by instruments of measurement. The translation produces data in the mathematical format required for the use of statistical tools capable of identifying complex relationships. The gain in precision from the use of statistical analysis is possible because the mathematical translation of the data has stripped it of the rich overtones and connotations that are carried in natural-language. Natural-language methods are crafted to work with data that retain the multiple levels of meaning of ordinary language. Their analytic procedures are designed to identify relationships patterned on the scenario or scripted, feature-bundle, the taxonomic, and the radial logics. These procedures, although lacking the precision of the propositional logic of mathematical analysis, are able to discover patterns within the

interlaced metaphorical and metonymic links of everyday speech and actions.

Counseling psychology already has one well-developed and sophisticated tool for research. The tool, however, is limited in that its use requires data to be in a quantitative format. Although it is efficient at addressing some of the important questions of our field, many other questions are better addressed using data in a natural-language format. Analysis of data in the natural-language format requires procedures designed for that purpose; namely, those developed for natural-language research. To address the breadth of questions of concern for our field, we need a diversity of methods. By extending our repertoire of research approaches we can increase our understanding of the full range of human experience and action, we enlarge our body of knowledge and thereby provide a greater understanding of human beings and serve our clients with greater awareness.

Concluding Comments

Two final brief points are corollaries to the foregoing comments. First, the methodological diversity I have outlined is not an "epistemological eclecticism" (Borgen, 1989), at least not an

unsystematic and theoretically ungrounded eclectism. The diversity I have proposed is grounded in a cognitive approach to science (Giere, 1988) and calls for use of the variety of structural systems humans employ to understand and comprehend their interactions with themselves, others, and the world. Second, counseling psychologists need, as part of their research repertoire, skills in methods based on both quantitative and natural-language approaches. They also need an understanding of which method is likely to provide greater access to a particular phenomenon under study. It would be inappropriate for some programs to become entirely natural-language based and others entirely quantitative.

Diversity of research methods is needed in counseling psychology, but not because qualitative methods offer practitioners more instrumental utility than quantitative methods. All research has its greatest application through conceptual utility. It is not because quantitative research is based on an old paradigm of knowledge. Both quantitative and qualitative research methods have a place in the current philosophy of science. Diversity is needed because the range of knowledge obtainable by

quantitative methods is too narrow to meet the needs of our field and our clients, whose lives partake of the full breadth of human experience.

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